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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,093	03/30/2004	Erik de la Iglesia	06897.P003	7295
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)				
	10/814,093	IGLESIA ET AL.				
Office Action Summary	Examiner	Art Unit				
	KIM T. NGUYEN	2163				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 6(a). In no event, however, may a reply be tim rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	l. lely filed the mailing date of this communication. (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on <u>07/06</u>	3/2009					
	action is non-final.					
	-					
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1-17,26 and 27</u> is/are pending in the a	application.					
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6) Claim(s) <u>1-17,26 and 27</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or	election requirement.					
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10)⊠ The drawing(s) filed on <u>30 March 2004</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) 2) Paper No(s)/Mail Date						
Information Disclosure Statement(s) (PTO/SB/08) Solution Sol						

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DETAILED ACTION

Remarks

- 1. Content leaving a local network can be captured. Objects captured over a network by a capture system can be indexed to provide enhanced search and content analysis capabilities. In one embodiment the objects can be indexed using a data structure having a source address field to indicate an origination address of the object, a destination address field to indicate a destination address of the object, a source port field to indicate an origination port of the object, a destination port field to indicate a destination port of the object, a content field to indicate a content type from a plurality of content types identifying a type of content contained in the object, and a time field to indicate when the object was captured. The data structure may also store a cryptographic signature of the object to ensure the object is not altered after capture. However, this inventive concept has been repeatedly done by the following prior arts.
- 2. (U.S. 7,185,073 B1) by Gai et al. ("Gai")
- 3. "Cryptographic Hash Functions" by Bart Preneel ("Preneel").

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

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5. Applicant's submission filed on 07/06/2009 has been entered. Claims 1-17, 26-27 are pending in this Application.

Response to Arguments

6. Applicant's arguments filed on 07/06/2009 have been fully considered but they are not persuasive for the following reasons:

Applicant argues that Gai does not disclose "items being captured". However, Gai discloses (on column 8 lines 31-52) software entities executing on the various end stations and servers typically communicate with each other by exchanging discrete packets or frames of data according to predefined protocols, such as the Transmission Control Protocol/Internet Protocol (TCP/IP), the Internet Packet Exchange (IPX) protocol, the AppleTalk protocol, the DECNet protocol or NetBIOS Extended User Interface (NetBEUI). In this context, a protocol consists of a set of rules defining how the entities interact with each other. Data transmission over the network consists of generating data in a sending process executing on a first end station, passing that data down through the layers of a protocol stack where the data are sequentially formatted for delivery over the links as bits. Those frame bits are then received at the destination station where they are re-assembled and passed up the protocol stack to a receiving process. Each layer of the protocol stack typically adds information (in the form of a header) to the data generated by the upper layer as the data descends the stack. At the destination station, these headers are stripped off one-by-one as the frame propagates up the layers of the stack until it arrives at the receiving process.

Examiner respectfully disagrees with all other allegations as argued as will be discussed in detail below. Examiner, in her previous office action gave detail explanation of claimed limitation and pointed out exact locations in the cited prior art.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111[R-1]

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification'.

Applicant always has the opportunity to amend the claims during prosecussion and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPW 541,550-51 (CCPA 1969).

7. Claim Rejections - 35 USC § 103

- 8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10-17, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 7,185,073 B1 issued to Gai et al. ("Gai") and in view of "Cryptographic Hash Functions" issued to Bart Preneel ("Preneel").

As per claim 1, Gai explicitly teach "a computer readable medium having stored thereon data representing instructions that, when executed by a processor, cause the processor to perform operations comprising":

generating a tag describing an object captured during transmission from an origination address to a destination address, wherein the tag includes, (column 8 lines 31-52) "a source address field to indicate an origination address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

"a destination address field to indicate a destination address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

"a source port field to indicate an origination port of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

"a destination port field to indicate a destination port of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5), "a content field to indicate a content type from a plurality of content types identifying a

type of content contained in the object," (column 11 lines 48-66, Fig. 7B, Fig. 6), and "a time field to indicate when the object was captured," (column 14 lines 30-46); and "storing the tag in a database, wherein the tag indexes a captured object in storage, the tag being stored to allow subsequent searching for the tag based on one or more of the fields, (Figures 7A, 7B).

Gai does not explicitly teach "wherein a tag signature is generated based on the tag, and wherein the object and the tag signature are evaluated to verify if they have been modified since original storage". However, Preneel teaches hash function of the object and hash function of the tag to generate tag signature and verify if they have been modified (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 2, Gai further shows "the plurality of content types," comprises:
"JPEG, GIF, BMP, TIFF, PNG, Skintone, PDF, MSWord, Excel, PowerPoint, MSOffice,
HTML, WebMail, SMTP, Telnet, Rlogin, FTP, Chat, GZIP, ZIP, TAR, C++ Source, C
Source, FORTRAN Source, Verilog Source, C Shell, K Shell, Bash Shell, Plaintext,
Crypto, LIF, Binary Unknown, ASCII Unknown, and Unknown," (column 11 lines 48-66,
Fig. 7B, Fig. 6).

As per claim 3, Gai further shows "generating a device identity field to indicate a device that captured the object," (column 12 lines 46-66, column 13 lines 1-6).

As per claim 4, Gai further shows "generating a protocol field to indicate the protocol that carried the object," (column 12 lines 46-66, column 13 lines 1-6, Fig. 7B).

As per claim 5, Gai further shows "an instance field to indicate a number of the object in a connection," (column 14 lines 30-62).

As per claim 6, Gai further shows "generating an encoding field to indicate a how the object was encoded," (column 19 lines 1-14, column 19 lines 26-37).

As per claim 7, Gai further shows "generating a size field to indicate the size of the object," (column 8 lines 40-52).

As per claim 8, Gai further shows "generating an owner field to indicate an entity that requested capture of the object," (column 12 lines 10-23, column 18 lines 37-66).

As per claim 9, Gai further shows "generating a capture rule field to indicate a rule that triggered capture of the object," (column 19 lines 1-37).

As per claim 10, Gai does not explicitly teach "generating a signature field to store a signature of the object". However, Preneel teaches a similar data structure of hash function (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 11, Gai does not explicitly teach "the signature comprises a digital cryptographic signature," (pages 2-5 sections 2-2.3). However, Preneel teaches a hash function to generate signature (pages 2-5 sections 2-2.3). Thus, it would have been

obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 12, Gai does not explicitly teach "generating a tag signature field to store a signature of the data structure". However, Preneel teaches a similar data structure of hash function (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 13, Gai does not explicitly teach "the tag signature comprises a digital cryptographic signature," (pages 2-5 sections 2-2.3). However, Preneel teaches a hash function to generate signature (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 14, Gai does not explicitly teach: "a computer readable medium having stored thereon data representing instructions that, when executed by a processor, cause the processor to perform operations comprising": storing data associated with capture of an object by a capture system to create a tag that indexes the captured object in storage, the data comprising:

"an Ethernet controller MAC address of the capture system that captured the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 8 lines 53-66,

column 9 lines 1-4, column 8 lines 31-66, column 9 lines 1-4);

"a source Ethernet IP address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5); "a destination Ethernet IP address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a source TCP/IP port number of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a destination TCP/IP port number of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"an IP protocol that carried the object when captured by the capture system," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a canonical count of a number of the object within a TCP/IP connection," (column 2 lines 15-27);

"a content type of the object," (column 11 lines 48-66, Fig. 7B, Fig. 6);

"an encoding that was used on the object," (column 19 lines 1-14, column 19 lines 26-37);

"a size of the object," (column 8 lines 40-52);

"a timestamp indicating when the capture system captured the object," (column 14 lines 30-46);

"a user who requested capture of the object," (column 12 lines 10-23, column 18 lines 37-66);

"a capture rule that directed capture of the object," (column 19 lines 1-37);

"a hash signature of the object," (pages 2-5 sections 2-2.3); and

a hash signature of the tag, (pages 2-5 sections 2-2.3),

the tag being stored to allow subsequent searching for the tag based on one or more of the fields, (Figures 7A, 7B),

wherein the signatures are evaluated to verify if they have been modified since original storage," (pages 2-5 sections 2-2.3).

However, Preneel teaches hash function of the object and hash function of the tag to generate tag signature and verify if they have been modified (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 15, Preneel and Gai teach the data structure of claim 14 discussed above. Preneel also teaches: "the hash signature of the object comprises a digital

cryptographic signature of the object," (pages 2-5 sections 2-2.3). However, Preneel teaches a hash function to generate signature (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 16, Preneel and Gai teach the data structure of claim 14 discussed above. Preneel also teaches: "the hash signature of the tag comprises a digital cryptographic signature of the tag," (pages 2-5 sections 2-2.3). However, Preneel teaches a hash function to generate signature (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 17, Gai explicitly teach "the content type of the object is one of JPEG, GIF, BMP, TIFF, PNG, Skintone, PDF, MSWord, Excel, PowerPoint, MSOffice, HTML, WebMail, SMTP, Telnet, Rlogin, FTP, Chat, GZIP, ZIP, TAR, C++ Source, C Source, FORTRAN Source, Verilog Source, C Shell, K Shell, Bash Shell, Plaintext, Crypto, LIF, Binary Unknown, ASCII Unknown, and Unknown," (column 11 lines 48-66, Fig. 7B, Fig. 6).

As per claim 26, Gai explicitly teach "a method to index a captured object, comprising":

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generating for storage of objects captured during transmission from an origination address to a destination address:

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"a source address field to indicate an origination address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a destination address field to indicate a destination address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a source port field to indicate an origination port of the object; a destination port field to indicate a destination port of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5); "a content field to indicate a content type from a plurality of content types identifying a type of content contained in the object," (column 8 lines 31-52, column 11 lines 48-66, Fig. 7B, Fig. 6); and

"a time field to indicate when the object was captured," (column 14 lines 30-46); and "storing data in the fields to create a tag, the tag indexing a captured object in storage, the tag being stored to allow subsequent searching for the tag based on one or more of the fields, (Figures 7A, 7B),

wherein a tag signature is generated based on the tag, and wherein the object and the tag signature are evaluated to verify if they have been modified since original storage," (pages 2-5 sections 2-2.3).

However, Preneel teaches hash function of the object and hash function of the tag to generate tag signature and verify if they have been modified (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

.As per claim 27, Gai explicitly teach "a method to index a captured object, comprising":

storing data associated with capture of an object by a capture system to create a tag indexing the captured object in storage, the data comprising:

"an Ethernet controller MAC address of the capture system that captured the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 8 lines 53-66, column 9 lines 1-4, column 8 lines 31-66, column 9 lines 1-4);

"a source Ethernet IP address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5); "a destination Ethernet IP address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-

16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a source TCP/IP port number of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a destination TCP/IP port number of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

system," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a canonical count of a number of the object within a TCP/IP connection," (column 2 lines 15-27);

"a content type of the object," (column 11 lines 48-66, Fig. 7B, Fig. 6);

"an IP protocol that carried the object when captured by the capture

"an encoding that was used on the object," (column 19 lines 1-14, column 19 lines 26-37);

"a size of the object," (column 8 lines 40-52);

"a timestamp indicating when the capture system captured the object," (column 14 lines 30-46);

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"a user who requested capture of the object," (column 12 lines 10-23, column 18 lines

37-66);

"a capture rule that directed capture of the object," (column 19 lines 1-37);

"a hash signature of the object," (pages 2-5 sections 2-2.3);

"a hash signature of the object," (pages 2-5 sections 2-2.3); and

"a hash signature of the tag, (pages 2-5 sections 2-2.3),

the tag being stored to allow subsequent searching for the tag based on one or more of

the fields, (Figures 7A, 7B),

wherein the signatures are evaluated to verify if they have been modified since original

storage," (pages 2-5 sections 2-2.3).

However, Preneel teaches hash function of the object and hash function of the

tag to generate tag signature and verify if they have been modified (pages 2-5 sections

2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of

the invention was made to provide the data structure of Gai with the teaching of Preneel

by using the hash function to solve the security problems in telecommunication and

computer networks.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim T. Nguyen whose telephone number is (571)270-1757. The examiner can normally be reached on 7:30AM to 5:00PM East. Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nov. 18, 2009 /K. T. N./

Examiner, Art Unit 2163

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/don wong/

Supervisory Patent Examiner, Art Unit 2163